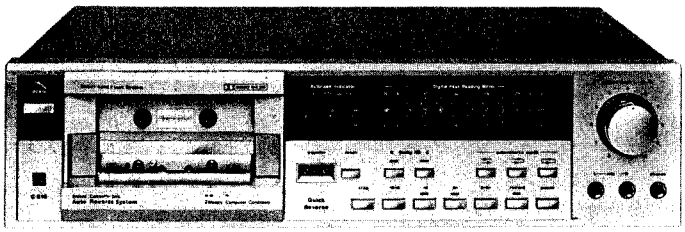
C 818



Service-Anleitung
Service Manual
Instructions de Service

Technische Daten (typische Werte)	**Technical data (typical value)**	**Caractéristiques techniques (valeur caractéristique)**	
Bandgeschwindigkeit	**Tape speed**	**Vitesse de bande**	4,75 cm/s (1 7/8 ips)
Kurzzeitige Geschwindigkeitsschwankungen (Tonhöhenschwankungen) W.R.M.S. nach DIN Aufnahme/Wiedergabe	**Wow and flutter** Weighted RMS to DIN for recording/playback	**Fluctuations instantanées de la vitesse** (variations de la hauteur du son) W.R.M.S. suivant DIN enregistrement/lecture	 ± 0,045 % ± 0,12 %
Übertragungsbereich (bezogen auf DIN-Toleranzfeld) Fe-Band CrO_2-Band Reineisen-Band	**Frequency response** (ref. to DIN tolerances) Standard Fe tape CrO_2 tape Pure metal tape	**Bande passante** (ramenée à la plage de tolérance DIN) Bande Fe Bande CrO_2 Bande fer pur	 25 – 16000 Hz 25 – 16000 Hz 25 – 17000 Hz
Ruhegeräuschspannungsabstand mit Dolby NR Fe-Band CrO_2-Band Reineisen-Band	**Signal-to-noise ratio** with Dolby NR Standard Fe tape CrO_2 tape Pure metal tape	**Rapport signal/bruit** avec Dolby NR Bande Fe Bande CrO_2 Bande fer pur	**Dolby NR** B C 64 dB 71 dB 64 dB 71 dB 67 dB 74 dB
Übersprechdämpfung (bei 1000 Hz) zwischen zusammengehörigen Kanälen zwischen Kanälen in Gegenrichtung	**Channel separation** (at 1000 Hz) between stereo channels in opposite direction	**Diaphonie** (à 1000 Hz) en sens stéréo en sens inverse	 40 dB 70 dB
Löschdämpfung bei 1000 Hz	**Erasure** at 1000 Hz	**Atténuation d'effacement** à 1000 Hz	70 dB
Oszillator-Frequenz (Gegentaktoszillator)	**Oscillator** (push/pull oscillator)	**Fréquence de l'oscillateur** (oscillateur push-pull)	 105 kHz
Eingänge (Empfindlichkeit für 0 dB) Mikrofon (1/4" Koaxial-Buchse) Receiver/Verstärker (DIN-Buchse) Receiver/Verstärker (RCA-Buchsen)	**Inputs** (sensivity at 0 dB) Microphone (1/4" coaxial jack) Receiver/amplifier (DIN connector) Receiver/amplifier (RCA jacks)	**Entrées** (sensibilité pour 0 dB) Micro (prise coaxiale de 1/4") Ampli-tuner/amplificateur (prise DIN) Ampli-tuner/amplificateur (prise RCA)	 0,4 mV/10 kOhm 0,25 mV/ 2,5 kOhm 80 mV/60 kOhm
Ausgänge Receiver/Verstärker (DIN-Buchse) Receiver/Verstärker (RCA-Buchsen) Kopfhörer (1/4" Koaxial-Buchse)	**Outputs** Receiver/amplifier (DIN connector) Receiver/amplifier (RCA jacks) Headphones (1/4 coaxial jack)	**Sorties** Ampli-tuner/amplificateur (prise DIN) Ampli-tuner/amplificateur (prises RCA) Casque d'écoute (prise coaxiale de 1/4")	 550 mV/8 kOhm 560 mV/3 kOhm 4–2000 Ohm
Umspulzeit für C 60 Cassette	**Fast winding time** for C 60 cassettes	**Temps de rebobinage** pour cassette C 60	 95 sec.
Netzspannung	**Line voltage**	**Tension secteur**	Europa Ausf. 230 V USA/Kanada Ausf. 115 V
Netzfrequenz	**Line frequency**	**Fréquence secteur**	50/60 Hz
Leistungsaufnahme	**Power requirement**	**Consommation**	25 Watt

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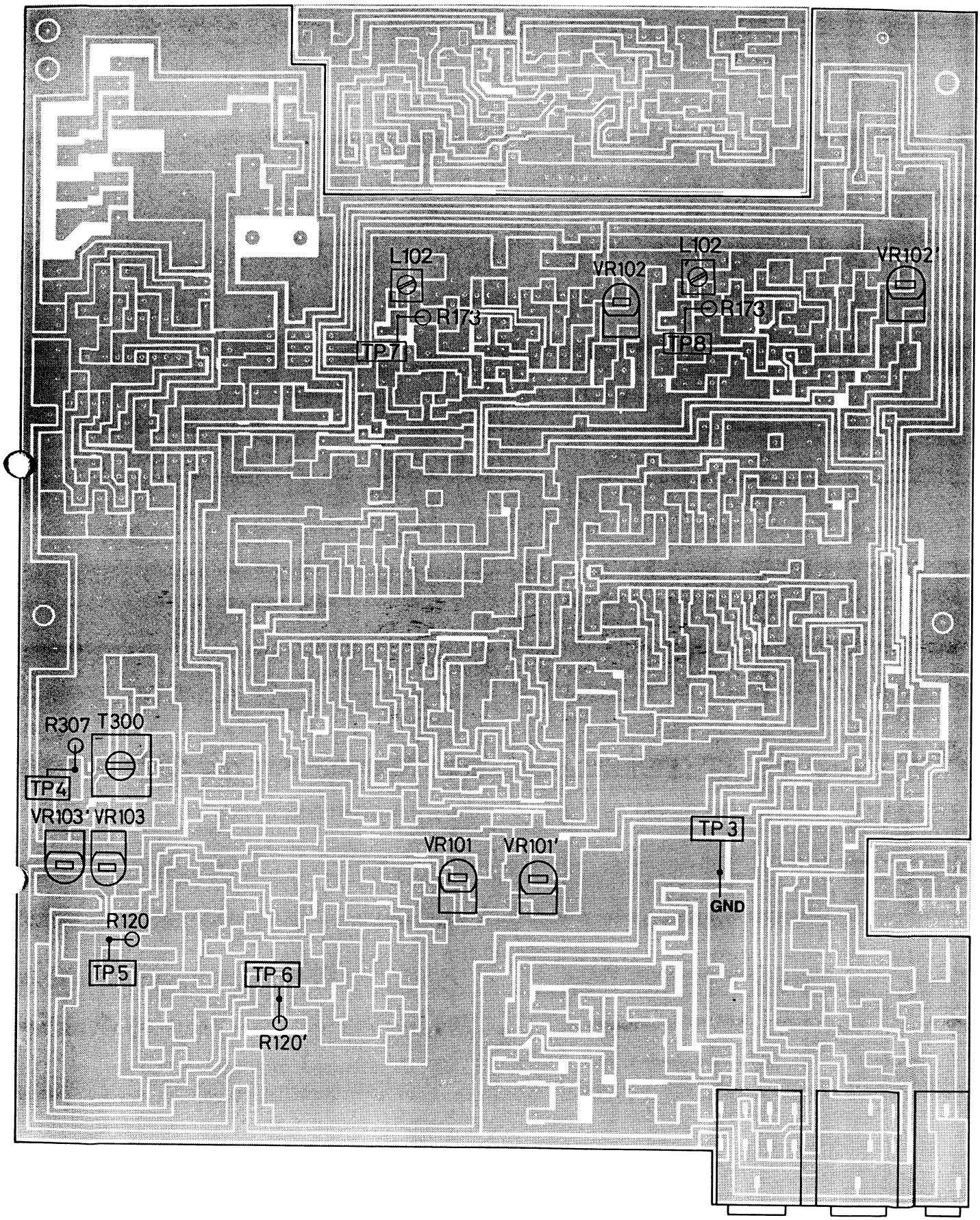
Abgleichanleitung C 818 · Adjustment instructions C 818

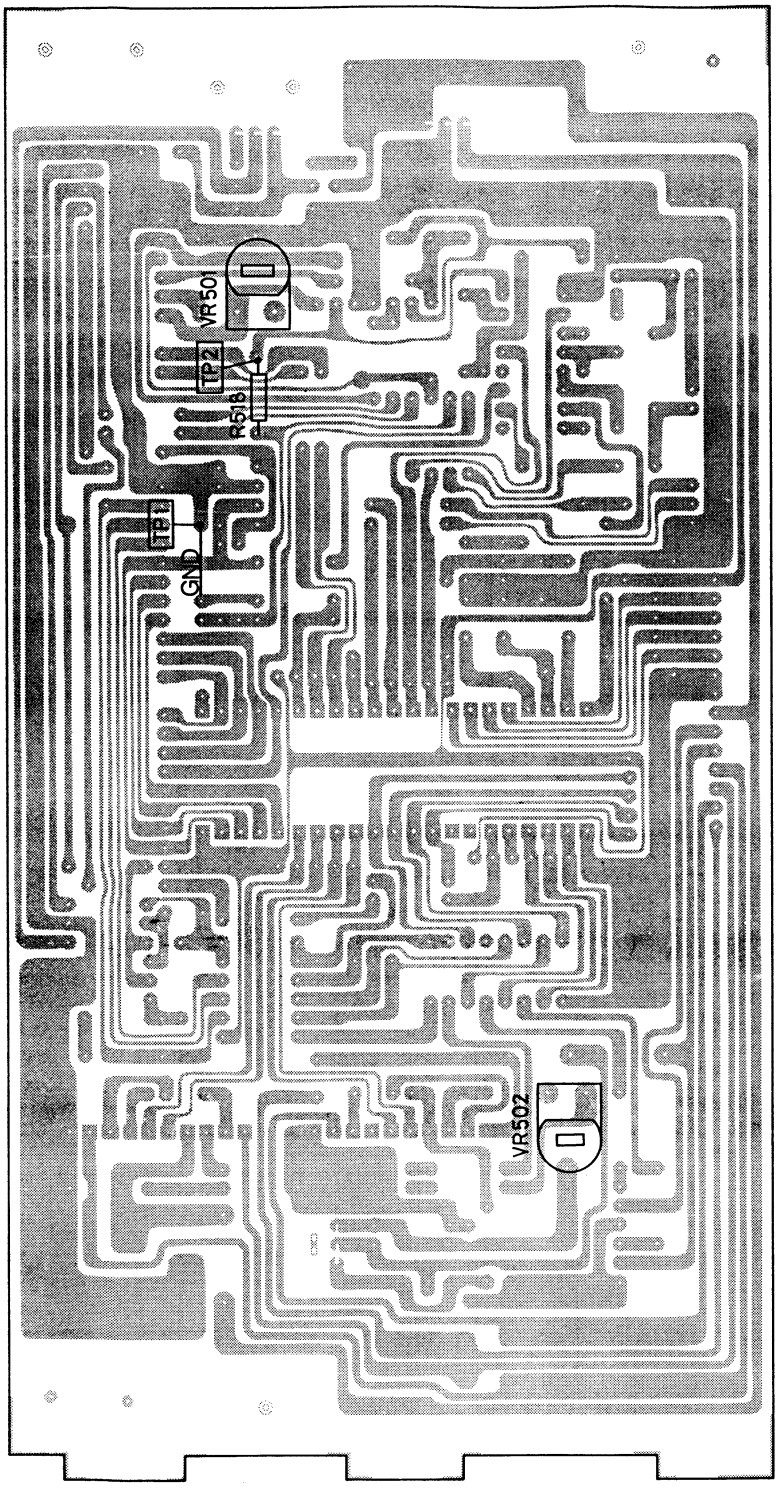
Signalquelle Signal source	Einstellung Signalquelle Signal source adjustment	Einstellung Gerät Unit adjustment	Meßgerät-Anschluß Testgear connection	Abgleichposition Adjustment position	Abgleich, Bemerkung Adjustment, Remarks
Bandlauf · Tape Run					
Spiegelkassette Mirror cassette				Schrauben A u. B Screws A a. B	Bandlauf prüfen Check tape run
Tape Sensor					
Meßkassette 2 Test cassette 2		Play Forward: ON	DC-Voltmeter an DC-voltmeter to TP 2 (R 518)	VR 501	1,0–1,5 V DC
Bandzug · Tape Tension					
Bandzugmeßkassette Torque Meter cassette		Play Forward: ON		VR 502	55 ± 5 p/cm
Bandgeschwindigkeit · Tape Speed					
Meßkassette 1 Test cassette 1	3150 Hz	Play Forward: ON	Frequenzzähler an Frequency counter to OUTPUT L/R	Steller Motor Motor screw	3150 Hz, – 0,5 %
Azimut · Azimuth					
Meßkassette 21 Test cassette 21	10 kHz	Play Forward: ON	NF-Voltmeter an AF-voltmeter to Output L/R	Azimutschraube F Azimuth screw F	Maximum mit Lack sichern Lock with Lacquer
		Play Reverse: ON		Azimutschraube R Azimuth screw R	
Wiedergabepegel · Playback Level					
Meßkassette 21 Test cassette 21	400 Hz Dolby	Dolby B: ON	NF-Voltmeter an AF-voltmeter to OUTPUT L/R	VR 101 VR 101'	560 mV
Oszillator, HF-Sperrkreis · Oscillator, RF-trap					
IEC IV-Kassette IEC IV-cassette		Met: ON Record: ON	Frequenzzähler an Frequency counter to TP 4 (R 307)	T 300	105 kHz ± 1 kHz
			NF-Voltmeter an AF-voltmeter to TP 7 TP 8	L 102 L 102'	Minimum HF Minimum RF
Aufnahmepegel · Record Level					
NF-Generator an AF-generator to INPUT L/R	400 Hz ca. 150 mV BASF S 4592 A IEC II	Cr: ON Record: ON	NF-Voltmeter an AF-voltmeter to OUTPUT L/R	Record Level	560 mV OUTPUT L/R, 0db LED Meter
				VR 102 VR 102'	560 mV
HF-Vormagnetisierung · RF-Magnetic-Biasing					
		Cr: ON Record: ON	NF-Voltmeter an AF-voltmeter to TP 5 (R 120) TP 6 (R 120')	VR 103 VR 103'	Vorpegel ca. 60 mV Pre Level appr. 60 mV
NF-Generator an AF-generator to INPUT L/R	400 Hz, 10 kHz 100 mV BASF S 4592 A IEC II		NF-Voltmeter an AF-voltmeter to OUTPUT L/R	Record Level	56 mV OUTPUT L/R
				VR 103 VR 103'	Bei Wiedergabe muß der 10 kHz Pegel dem 400 Hz Pegel entsprechen. Mehr Höhen = gegen den Uhrzeigersinn drehen. Adjust to level symmetrie on playback test frequency, at treble emphasis: turn counter clockwise

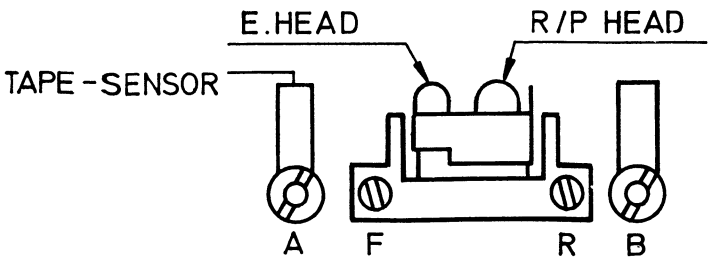
Meßkassette 1: Gleichlaufkassette 3150 Hz
Meßkassette 2: Schwarzes Leergehäuse ohne Vorlauf- und Magnetband
Meßkassette 21: 400 Hz Dolby-Pegel, 200 nWb/m 400 Hz – 20 dB, 10 kHz – 20 dB
Bezeichnung: VR 103 = linker Kanal
VR 103' = rechter Kanal

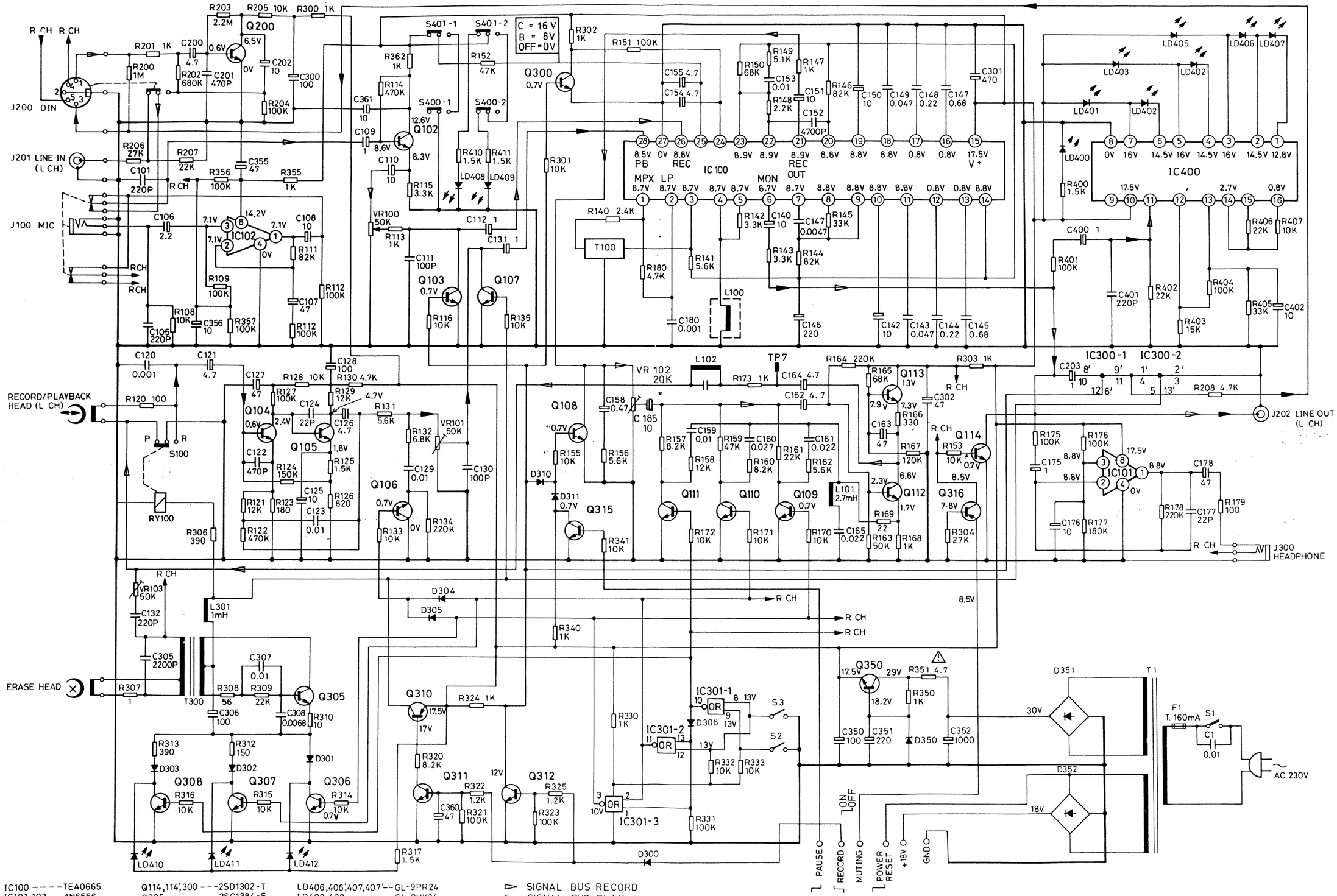
Test cassette 1: Tape speed test cassette 3150 Hz
Test cassette 2: Empty black cassette housing without Leader- and magnetic tape
Test cassette 21: 400 Hz Dolby-Level, 200 nWb/m 400 Hz – 20 dB, 10 kHz – 20 dB
Signification: VR 103 = left channel
VR 103' = right channel

Bandsorten:
IEC I BASF LH Super I
IEC II BASF Cr Super II
IEC IV TDK MA


L102
R173
TP7
VR102
L102
R173
TP8
VR102'
R307
T300
TP4
VR103' VR103
VR101
VR101'
TP 3
GND
R120
TP5
TP 6
R120'


VR501
TP2
R616
TP1
GND
VR502


E.HEAD
R/P HEAD
TAPE-SENSOR
A
F
R
B



IC100 ----TEA0665
IC101,102 -- AN6556
IC300 ----TC4066BP
IC301 ----TC4001BP
IC400 ----AN6882

Q102,102',104,104,105,105', 112,112',113,113',200, 200 ----2SC2634-T
Q 103,103',106~111,106~111', 301,307,308,311,312, 315 ----2SC1685-S

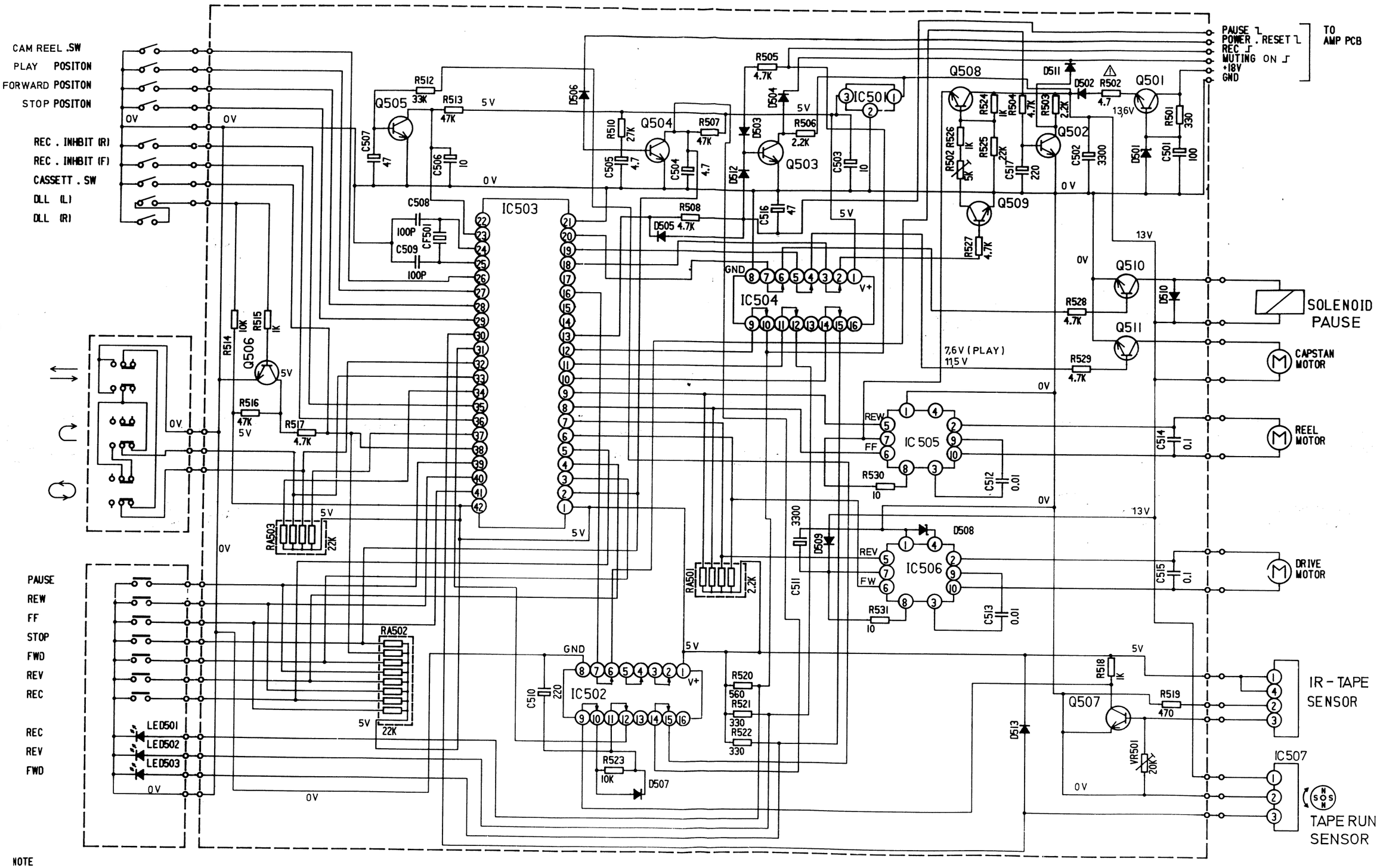
Q114,114',300 ---2SD1302-T
Q305 ---------2SC1384-S
Q306 ---------2SD592-S
Q310 ---------2SA684-S
Q316 ---------2SA564-R
Q350 ---------2SD886-Y

D300~306,310,311-MA150
D350 ---------HZ18-2
D351,352 ----SVB10-100
LD400~405,400'~405', 410~412 ---GL-9NG24

LD406,406',407,407'--GL-9PR24
LD408,409 ---------GL-9HY24

▷ SIGNAL BUS RECORD
▶ SIGNAL BUS PLAY

S1---POWER ON/OFF SWITCH (OFF POSITION)
S2 } --AUTO TAPE SWITCH
S3 }
S100--RECORD/PLAYBACK SWITCH (PLAYBACK POSITION)
S400--DOLBY-B SWITCH (OFF POSITION)
S401--DOLBY-C SWITCH (OFF POSITION)



NOTE

(IC)

IC501	: UA78M05UC
IC502 , 504	: TD40498P
IC503	: TMP432IP
IC505 , 506	: BA6109
IC507	: DN 6838

(TR)

Q501 , 508	: 2SD549
Q502 , 503 , 504 , 505 Q506 , 507 , 509	: 2SC1685-S
Q510 , 511	: 2SD893A-R

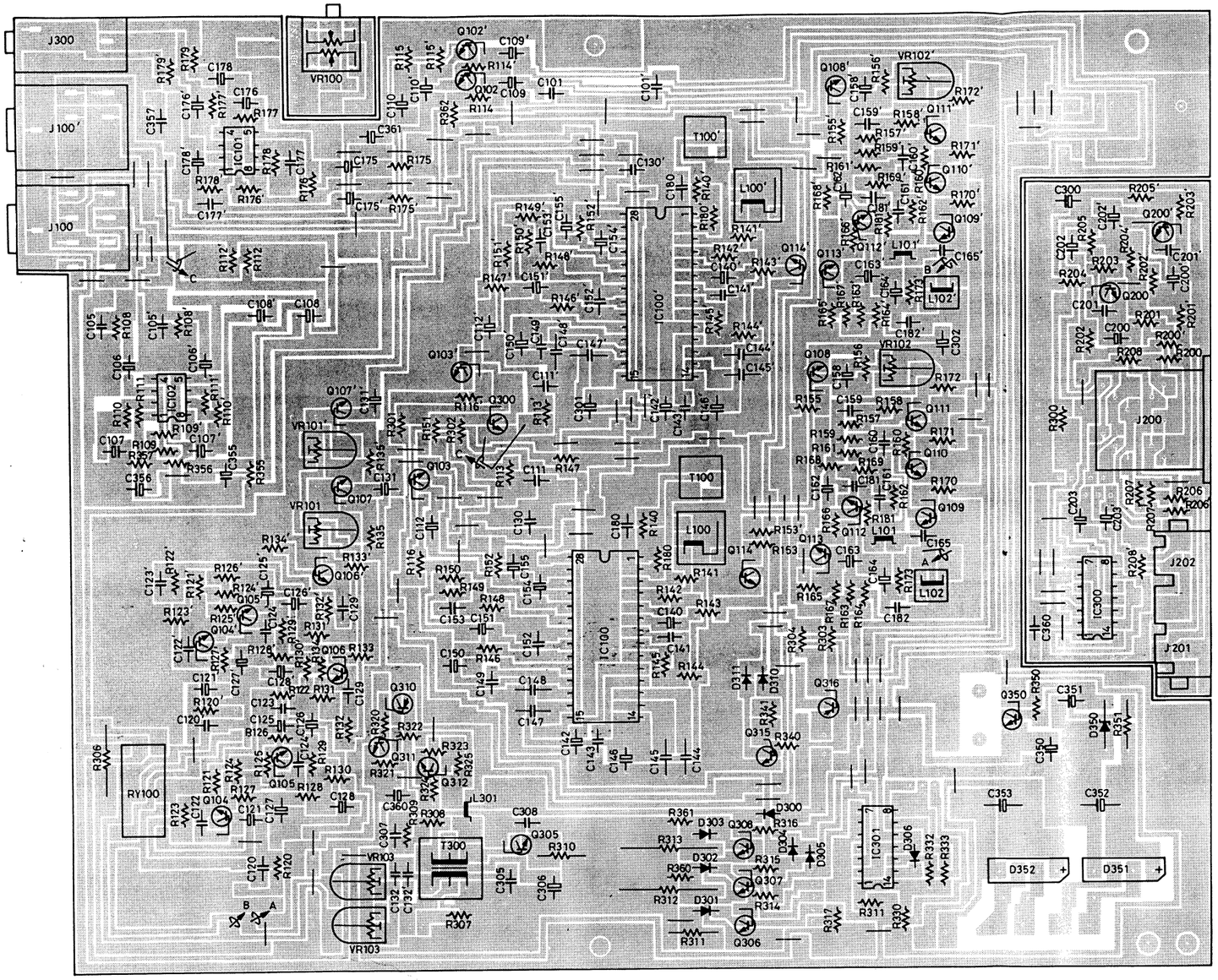
(DI)

D501	: HZ15-3
D502 , 509 , 510	: SR1S-2
D503 , 504 , 505 , 506 , 507 511 , 512 , 513	: MA150
D508	: GZA6.8X

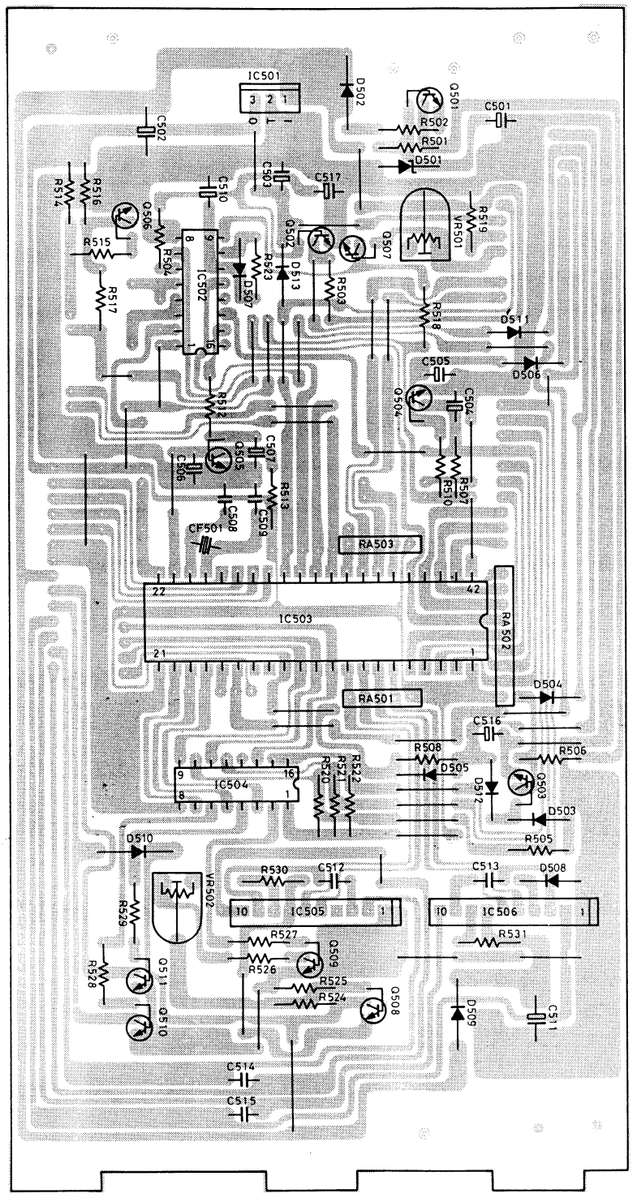
(LED)

LED501	: GL-9PR24
LED502 , 503	: GL-9NG24

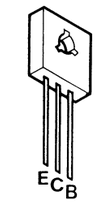
Grundplatte / Main board / Plaque d'étage L



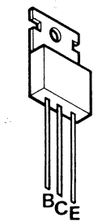
Controlplatte / Control board / Plaque d'contrôle L



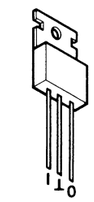
2 SC 2634-T
2 SC 1685-S
2 SD 1302-T
2 SC 1384-S
2 SD 592-S
2 SA 684-S
2 SA 564-R
2 SD 893 A-R



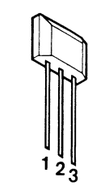
2 SD 549



2 SD 886-Y

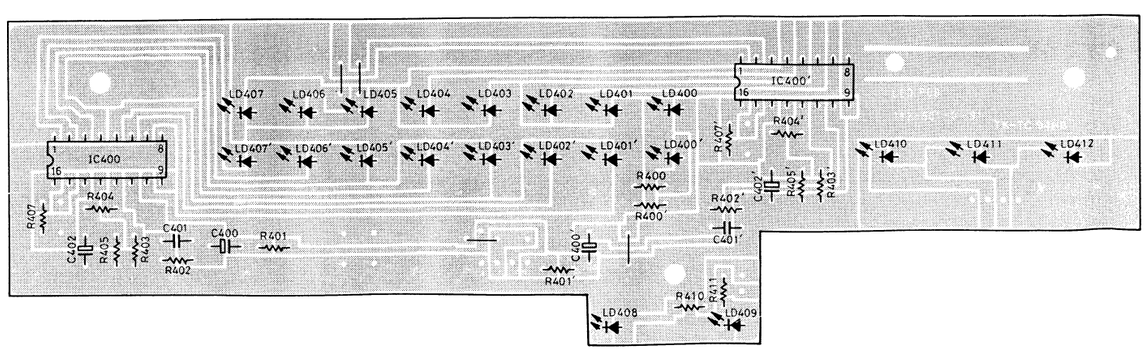


μA 78 MO5 UC

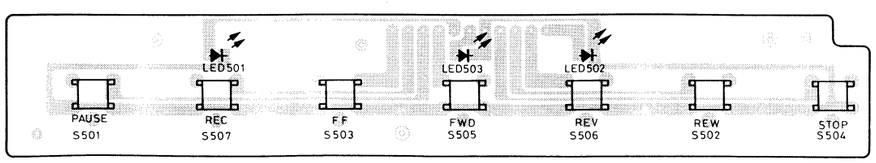


DN 6838

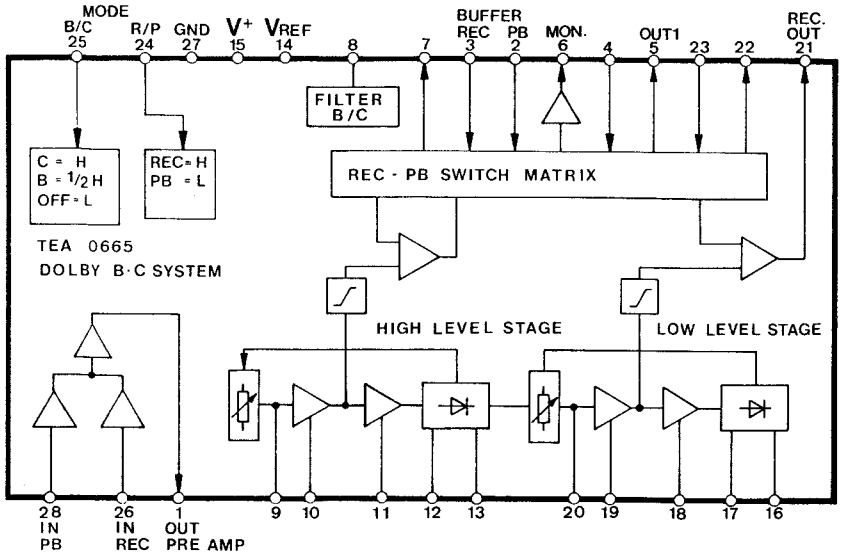
LED-Platte / LED board / Plaque de LED L



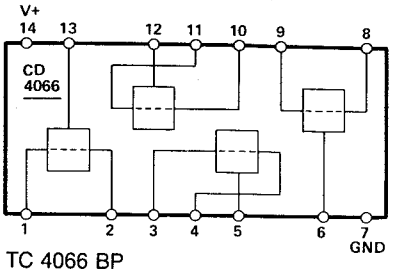
Tasterplatte / Key board / Plaque de touche L



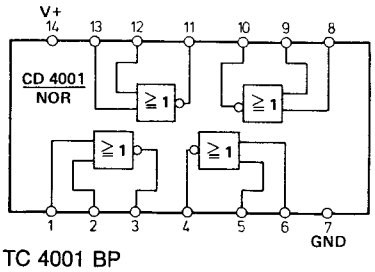
L = Leiterseite / Wiring side / Côté de conducteur



TEA 0665



TC 4066 BP



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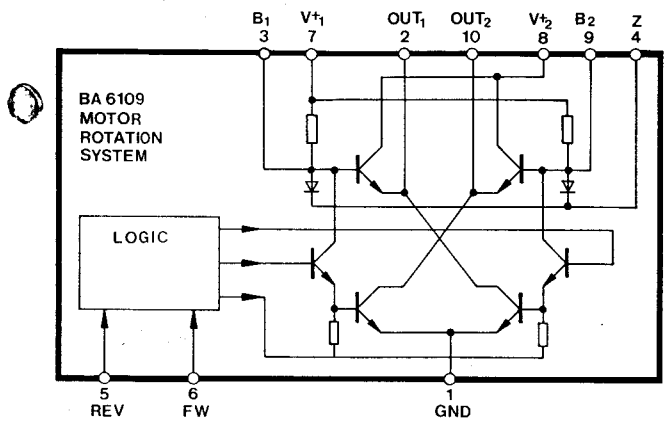
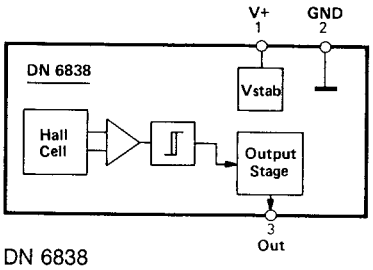
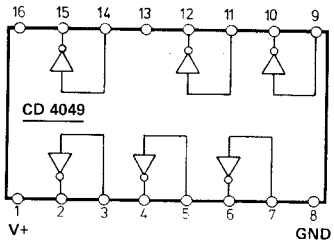


BA 6109



DN 6838



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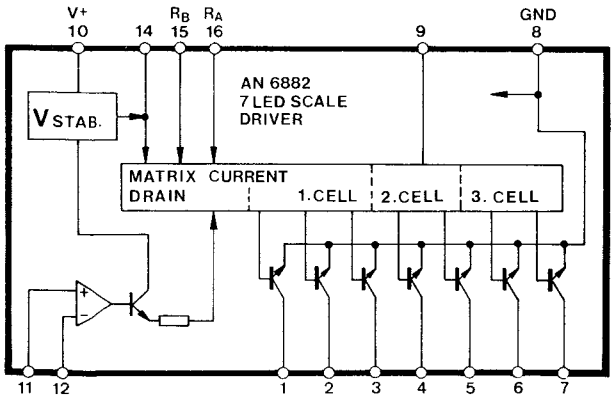
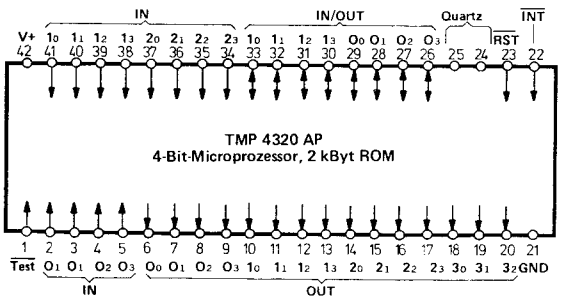
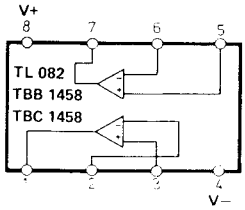


AN 6882



TMP 4321 P



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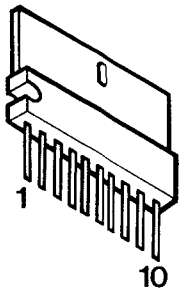

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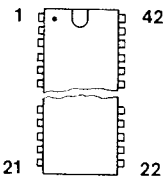

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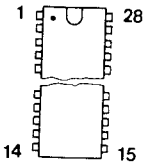
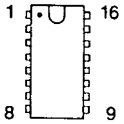
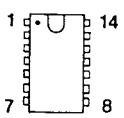


TEA 0665



TC 4049 BP
AN 6882



TC 4066 BP
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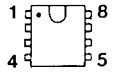
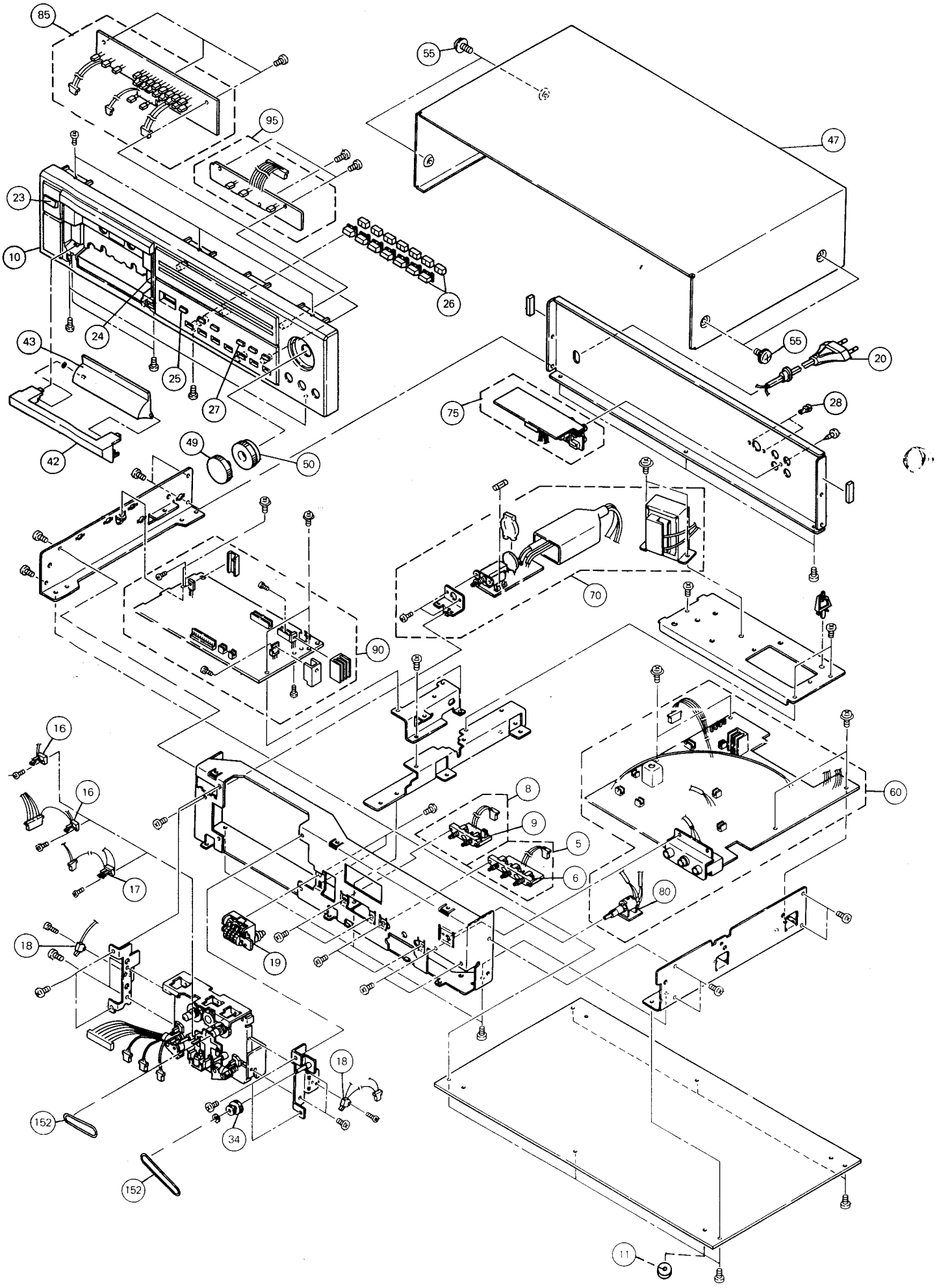


AN 6556

Explosionszeichnung / Exploded view / Vue explosée 1



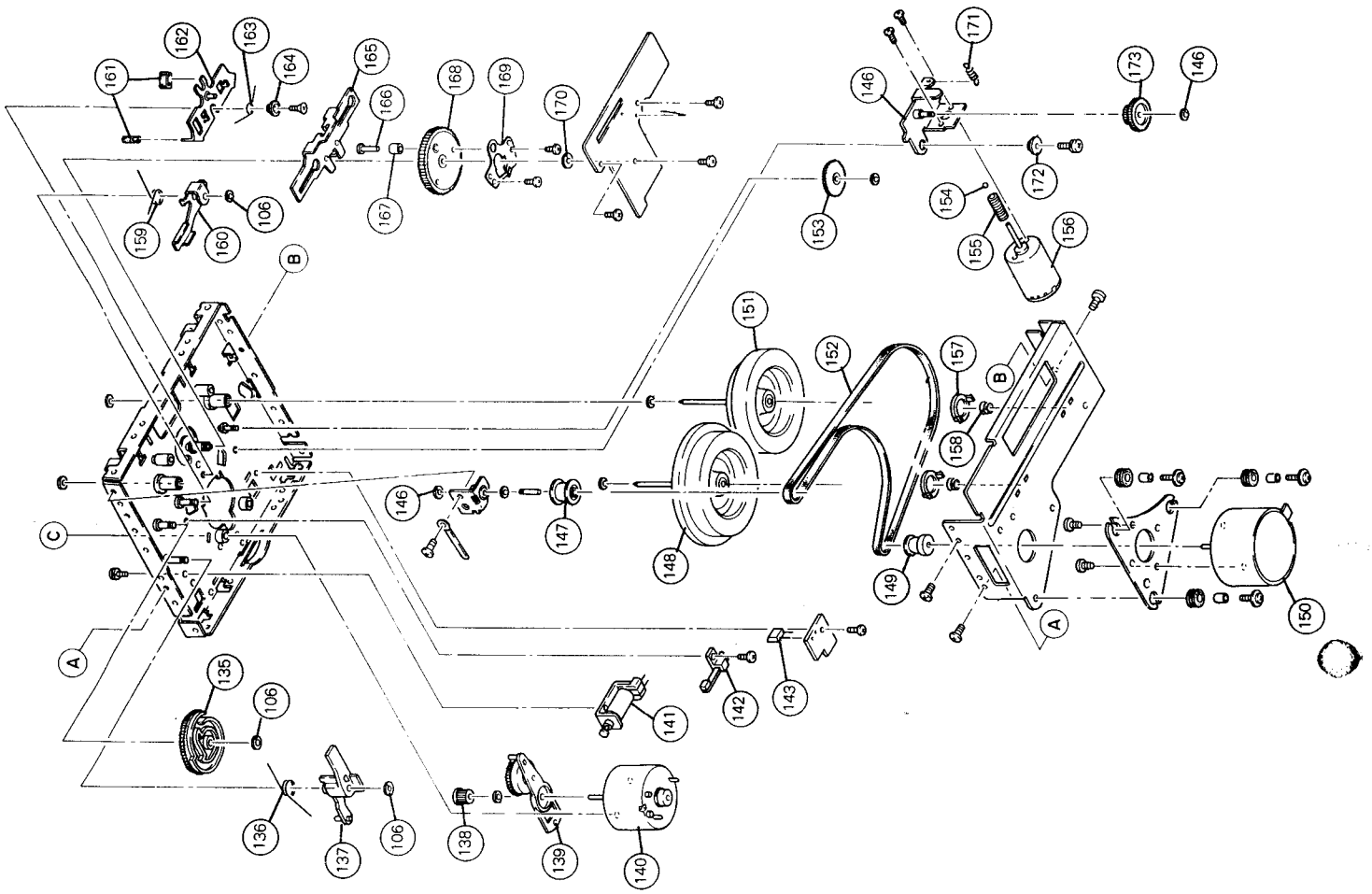
Ersatzteile · Replacement parts · Pièces détachées · C 818

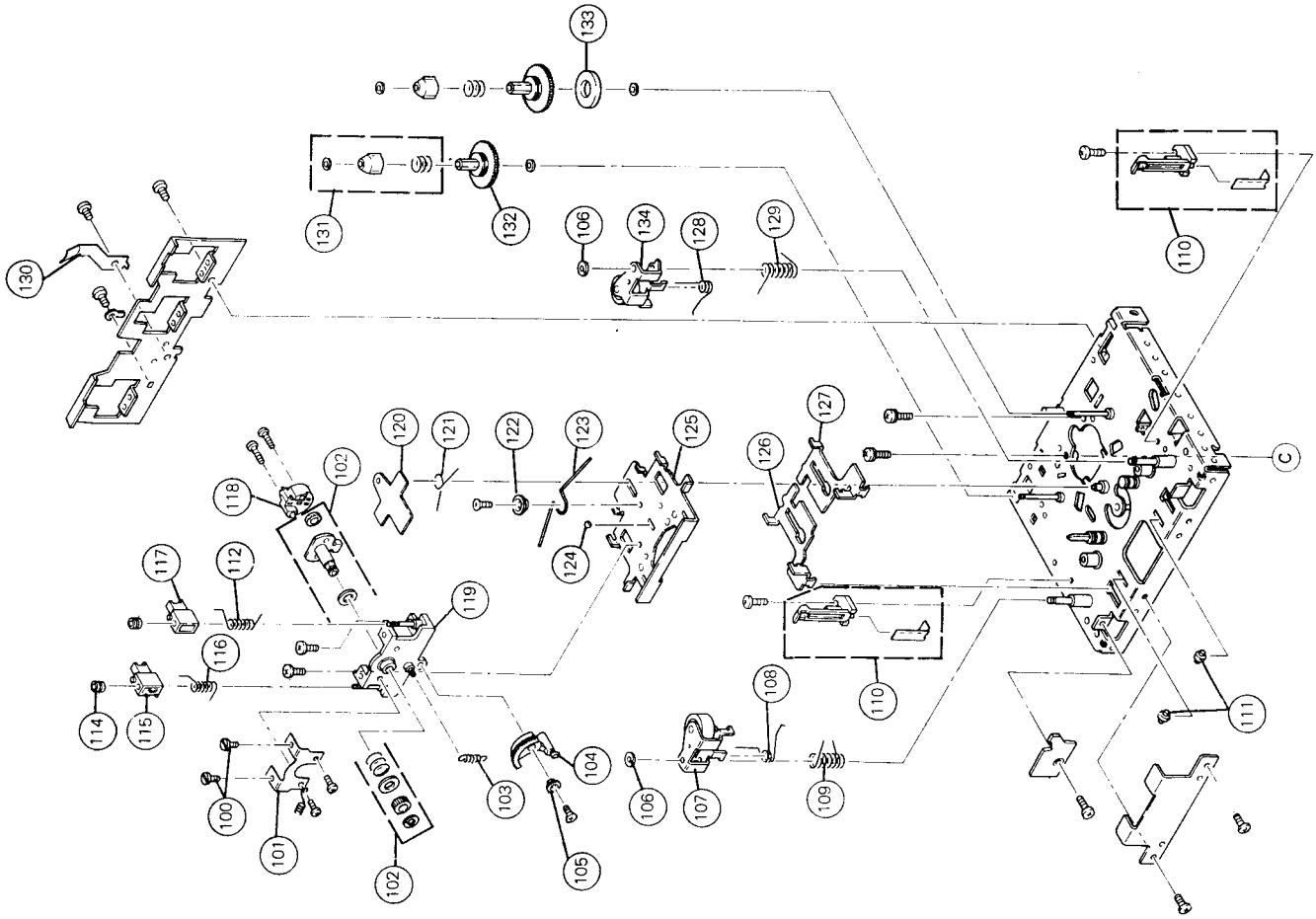
Pos.	Art.-Nr.	Stck	Bezeichnung
5	278063	1	Modeschalterplatte
6	278089	1	Schalter
8	278064	1	Dolbyplatte
9	278090	1	Schalter
10	278065	1	Frontblende kpl. SM
10	278593	1	Frontblende kpl. AM
11	268315	4	Fuß
15	278070	1	Schalter
16	278325	1	Schalter
17	278326	1	Schalter
18	278071	2	Schalter
19	278072	1	Zähler
20	243750	1	Netzkabel Europa
23	278331	1	Powertaste kpl. SM
23	275903	1	Powertaste kpl. AM
24	278332	2	Taste kpl. SM
24	278792	2	Taste kpl. AM
25	272470	1	Zählerknopf SM
25	275902	1	Zählerknopf AM
26	278333	7	Taste kpl. SM
26	278594	7	Taste kpl. AM
27	274056	5	Taste SM
27	278792	5	Taste AM
28	264063	2	Befestigungsteil
34	278076	1	Antriebsrolle
42	278077	1	Kopfabdeckung
42	278590	1	Kopfabdeckung AM
43	278078	1	Kopfvisier
47	272671	1	Gehäuseblech SM
47	275896	1	Gehäuseblech AM
49	272326	1	Volumeknopf L SM
49	278591	1	Volumeknopf L AM
50	278079	1	Volumeknopf R SM
50	278592	1	Volumeknopf R AM
55	272673	4	Schraube 4×6 SM
55	275907	4	Schraube 4×6 AM
60	278081	1	Grundplatte
D 300	264086	9	Diode MA 150
bis			
D 306	264086	9	Diode MA 150
D 310	264086	9	Diode MA 150
D 311	264086	9	Diode MA 150
D 350	269103	1	Diode Hz 18-2
D 351	263037	2	Diode SVB 10-100
D 352	263037	2	Diode SVB 10-100
J 100	272949	1	Buchse MIC L
J 101	274443	1	Buchse MIC R
J 300	273422	1	Buchse Phones
L 100	273776	2	Spule
L 101	271071	2	Spule 2,2 MH
L 102	268338	2	Spule
L 301	273777	1	Spule 1 MH
Q 102	271130	10	Transistor 2 SC 2634 T
Q 103	273779	18	Transistor 2 SC 1685 S
Q 104	271130	10	Transistor 2 SC 2634 T
Q 105	271130	10	Transistor 2 SC 2634 T
Q 106	273779	18	Transistor 2 SC 1685 S
bis			
Q 111	273779	18	Transistor 2 SC 1685 S
Q 112	271130	10	Transistor 2 SC 2634 T
Q 113	271130	10	Transistor 2 SC 2634 T
Q 114	274774	3	Transistor 2 SD 1302 T
Q 300	274774	3	Transistor 2 SD 1302 T
Q 301	265578	1	Transistor 2 SA 564
Q 305	271013	1	Transistor 2 SC 1384 S
Q 306	263028	1	Transistor 2 SD 592 NC-S
Q 307	273779	18	Transistor 2 SC 1685 S
Q 308	273779	18	Transistor 2 SC 1685 S
Q 310	265579	1	Transistor 2 SA 684
Q 311	273779	18	Transistor 2 SC 1685 S
Q 312	273779	18	Transistor 2 SC 1685 S
Q 315	273779	18	Transistor 2 SC 1685 S
Q 350	263157	1	Transistor 2 SD 880 Y
T 100	270140	2	Spule MPX
T 300	273778	1	Oszilotorspule
IC 100	278162	1	IC TEA 0665
IC 101	260189	1	IC TBB 1458 B
IC 301	273840	1	IC TC 4001 BP
RY 100	278160	1	Relais
VR 101	270142	2	Steller 50 kΩ
VR 102	263041	2	Steller 20 kΩ
VR 103	270142	2	Steller 50 kΩ
R 310	278596	1	Sicherungswiderstand 10/0,25 W
R 351	273785	1	Sicherungswiderstand 4,7/0,25 W

Pos.	Art.-Nr.	Stck	Bezeichnung
70	278059	1	Netzschalterplatte kpl.
F 1	221269	1	Sicherung 0,16 A/250 V T
S 1	277989	1	Schalter
T 1	278084	1	Netztrafo kpl. (230 V)
T 1	278598	1	Netztrafo kpl. (115 V)
75	278082	1	Buchsenplatte
J 200	278163	1	Buchse DIN
J 201	278327	1	Anschlußbuchsen Cinch
Q 200	271130	2	Transistor 2 SC 2634 T
IC 300	242303	1	IC MC 14069 BCP MOS
80	278083	1	Volumeplatte
81	274444	1	Volume-Steller 5 kΩ
85	278060	1	LED-Platte kpl.
IC 400	278085	1	IC AN 6882
LD 400	273786	9	LED GL 9 NG 24
bis			
LD 405	273786	9	LED GL 9 NG 24
LD 406	274417	2	LED GL 9 PR 24
LD 407	274417	2	LED GL 9 PR 24
LD 408	278086	1	LED GL 9 HY 24
LD 409	278086	2	LED GL 9 HY 24
LD 410	273786	9	LED GL 9 NG 24
bis			
LD 412	273786	9	LED GL 9 NG 24
90	278061	1	Controlplatte
D 501	264089	1	Diode HZ 15-3
D 502	271098	3	Diode SR 1 S 2
D 503	264086	9	Diode MA 150
bis			
D 507	264086	9	Diode MA 150
D 508	278088	1	Diode GZA 6,8 X
D 509	271098	1	Diode SR 1 S 2
D 510	264086	9	Diode MA 150
bis			
D 514	264086	9	Diode MA 150
Q 501	269488	2	Transistor 2 SD 549
Q 502	273779	7	Transistor 2 SC 1685 S
bis			
Q 507	273779	7	Transistor 2 SC 1685 S
Q 508	269488	2	Transistor 2 SD 549
Q 509	273779	7	Transistor 2 SC 1685 S
Q 510	271104	2	Transistor 2 SD 893 R
Q 511	271104	2	Transistor 2 SD 893 R
CF 501	271101	1	Keramik-Filter
IC 501	244419	1	IC MA 78 MO 5 C
IC 502	248765	2	IC MC 14049 BCP MOS
IC 503	278087	1	Micro Computer
IC 504	248765	2	IC MC 14049 BCP MOS
IC 505	278226	1	IC BA 6209
IC 506	278226	1	IC BA 6209
VR 501	270142	1	Steller 50 kΩ
VR 502	270193	1	Steller 5 kΩ
R 502	273785	1	Sicherungswiderstand 4,7/0,25 W
95	278062	1	Tasterplatte
S 501	274447	7	Taster
bis			
S 507	274447	7	Taster
LD 501	274417	1	LED GL 9 PR 24
LD 502	273786	2	LED GL 9 NG 24
LD 503	273786	2	LED GL 9 NG 24
100	278387	2	Azimuthschraube
101	278401	1	Federplatte
102	278407	1	Kopfbefestigungsteile
103	278355	1	Zugfeder
104	278374	1	Revershebel
105	278386	1	Distanzrolle
107	278336	1	Andruckrolle kpl.
108	278360	1	Schenkelfeder
109	278362	1	Schenkelfeder
110	278358	2	Cassettenhalter
111	278392	2	Gleitrolle
112	278356	1	Schenkelfeder
114	278391	2	Mutter
115	278339	1	Fotosensor SPI 305
116	278357	1	Schenkelfeder
117	278382	1	Bandführung
118	278029	1	Controlplatte
119	278342	1	Kopfträger
120	278397	1	Support
121	278353	1	Schenkelfeder

Änderungen vorbehalten! / Subject to change! / Sous réserve de modification!

Explosionszeichnung / Exploded view / Vue explosée 2





Pos.	Art.-Nr.	Stck	Bezeichnung
122	278385	1	Distanzrolle
123	278352	1	Schenkelfeder
124	209355	1	Kugel 2,5
125	278396	1	Kopfträgerplatte
126	278399	1	Schaltarm
127	278398	1	Schaltarm
128	278359	1	Schenkelfeder
129	278361	1	Schenkelfeder
130	278406	1	Blattfeder
131	278414	2	Mitnehmer kpl.
132	278370	2	Mitnehmerrad
133	278338	1	Magnetring
134	278335	1	Andruckrolle kpl.
135	278378	1	Kurvenrad
136	278364	1	Schenkelfeder
137	278379	1	Schalthebel
138	278372	1	Antriebsrad
139	278334	1	Kupplung
140	278067	1	Motor kpl.
141	278345	1	Zugmagnet
142	278368	1	Schalter
143	263029	1	IC DN 6838 (IC 507)
146	278409	1	Scheibe
147	278394	1	Antriebsrolle
148	278341	1	Schwungscheibe
149	278395	1	Antriebsrolle
150	278066	1	Motor kpl.
151	278340	1	Schwungscheibe

Pos.	Art.-Nr.	Stck	Bezeichnung
152	278526	1	Riemensatz
153	278377	1	Getrieberad
154	209353	1	Kugel 2,0
155	278381	1	Getrieberad
156	278068	1	Motor kpl.
157	278369	2	Lager
158	278346	2	Druckfeder
159	278365	1	Schenkelfeder
160	278404	1	Schalthebel
161	278376	2	Bremsbelag
162	278344	1	Bremsarm
163	278363	1	Schenkelfeder
164	278390	1	Distanzrolle
165	278403	1	Schalthebel
166	278389	1	Schaft
167	278388	1	Distanzrolle
168	278375	1	Getrieberad
169	278402	1	Gleiter
170	278410	1	Scheibe
171	278366	1	Zugfeder
172	278393	1	Distanzrolle
173	278380	1	Getrieberad
	277965	1	Bedienungsanleitung C 818
	278080	1	Verpackungskarton SM
	278595	1	Verpackungskarton AM
	278328	1	Seitenteil L
	278329	1	Seitenteil R
	278330	1	Seitenteil F

Änderungen vorbehalten! / Subject to change! / Sous réserve de modification!

Prozessor TMP 4321 P (IC 503) · Pinbelegung

Pin	Signal		In Function by:
1		+ 5 V	
2	← ⌐	Stop Switch, Power OFF	
3	← ⌐	Play Switch Forward ▶	
4	← ⌐	Play Switch Reverse ◀	
5	← ⌐	Record Switch	
6	→ ⊔	Drive Motor Forward ON	Play Forward, Stop Reverse
7	→ ⊔	Drive Motor Reverse ON	Play Reverse, Stop Forward
8	→ ⌐	Reel Motor Forward ON	Forward, Fast Forward
9	→ ⌐	Reel Motor Reverse ON	Reverse, Rewind
10	→ ⌐	LED Play Forward ▶	Play Forward
11	→ ⌐	LED Play Reverse ◀	Play Reverse
12	→ ⌐	LED Record, Relay RL 100 ON	Record SB, Record
13	→ ⌐	Muting ON, Muting Record Amp	Pause
14			
15			
16	→ ⌐	Muting OFF	Record SB, Record, Play, Pause
17			
18	→ ⌐	Reel Motor Tape Tension Level ON (Bandzug-Pegel)	Play Forward, Play Reverse
19	→ ⌐	Capstan Motor ON	alle Funktionen, all functions
20	→ ⊔	Solenoid Pause	Pause
21		GND	
22			
23	← ⌐	Reset	Stop ON, Power OFF
24	}	Quartz	
25	}	Quartz	
26	← ⌐	Cam Wheel Switch (Kurvenradschalter)	Pause, Fast Forward, Rewind
27	← ⌐	R/P Head in Pos. Play } Drive Motor Switch Position	Tonkopfschlitten in Pos. Play
28	← ⌐	R/P Head in Pos. Forward } Drive Motor Switch Position	Tonkopf in Pos. Forward
29	← ⌐	R/P Head in Pos. Stop } Drive Motor Switch Position	Tonkopfschlitten in Pos. Stop
30	← ⊓⊓⊓	Tape Run Sensor	
31	← ⌐	Tape Sensor: Magnetic Tape End (Magnetbandende)	Play Forward, Play Reverse
32	← ⌐	Mode Continious Play	⊏ Switch
33	← ⌐	Mode Reverse	⊐ Switch
34		+ 5 V	
35	← ⌐	Record Safety Switch Reverse	Musicassette
36	← ⌐	Record Safety Switch Forward	Musicassette
37		+ 5 V	
38	← ⌐	Cassette Switch, DLL ON	Kassette entfernt, without a cassette
39	← ⌐	Pause Switch	
40	← ⌐	Rewind Switch ◀◀	
41	← ⌐	Fast Forward Switch ▶▶	
42		UBAT + 5 V	

Bezeichnung, Signification:

2 ← Input
7 → Output
⊓ Signal HIGH active
⌐ Signal LOW active
Record SB = Record Stand By